

CLAIMS

I claim:

1. A device for applying a protective coating to a surface, comprising:
a composite, comprising:
a matrix comprising at least one polymer resin selected from the group
consisting of hydrocarbon, polybutene, silicone, and polyethylene;
at least one silicone fluid;
a surface coating comprising at least one material selected from the group
consisting of wax, silicone resin; and
a multiplicity of inert particles dispersed within the matrix;
wherein the composite has a wax penetration point measurement from about
60 mm to about 250 mm at 25 degrees Celsius [under ASTM Test Method
D217]; and
wherein the device is adapted to be rubbed upon the surface to provide coating
on the surface.
2. A device according to claim 1, wherein the inert particles comprise at least one
material selected from the group consisting of aluminum silicate, diatomaceous earth, and
aluminum oxide.
3. A device according to claim 1, wherein the inert particles comprise at least two
materials selected from the group consisting of aluminum silicate, diatomaceous earth,
and aluminum oxide.
4. A device according to claim 1, wherein the composite contains less than about 5
percent by weight of volatile organic compounds and less than about 5 percent non-
volatile hydrocarbon solvents.

5. A device according to claim 1, wherein the sum of the weight percentages of all soaps and detergents contained in the composite is less than about 10 percent.
6. A device according to claim 1, wherein the weight of the inert particles is between about 40 percent and about 80 percent of the total weight of the composite material.
7. A device according to claim 1, wherein the silicone fluid comprises at least one fluid selected from the group consisting of polydimethylsiloxane fluid, dimethyl siloxane polymer fluid, alkylmethyl polysiloxane fluid, dimethylsiloxane fluid, and amine functional silicone fluid.
8. A device according to claim 1, wherein the composite contains less than about 1 percent by weight of volatile organic compounds.
9. A device according to claim 1, wherein the composite is adapted so that it has formed on its surface a layer of silicone fluid.
10. A device according to claim 9, wherein the coating of silicone fluid, which forms on the surface of the composite, has a multiplicity of inert particles distributed in the coating of silicone fluid.
11. A device according to claim 1, wherein the composite maintains its flexibility upon exposure to the atmosphere.
12. A device according to claim 1, wherein the composite maintains its lubricant content upon exposure to the atmosphere.
13. A device according to claim 1, wherein the composite is adapted to conform to the shape of the surface upon which the device is rubbed.
14. A device according to claim 1, wherein the inert particles are selected to minimize scratching of the surface upon which the device is rubbed.
15. A device according to claim 1, wherein the device is adapted so that the device, when rubbed upon the surface, deposits a durable, water-resistant coating thereupon.

16. A device according to claim 1, wherein emulsifiers constitute less than about 10 percent by weight of the composite.
17. A device according to claim 1, wherein water constitutes less than about 5 percent of the composite.
18. A system for applying a protective coating to a surface, comprising:
a device for applying a protective coating to the surface, the device comprising:
a composite, the composite comprising:
a matrix comprising at least one polymer resin chosen from the following group: hydrocarbon, polybutene, silicone, polyethylene;
at least one silicone fluid;
a surface coating comprising at least one material selected from the following groups: wax, silicone resin; and
a multiplicity of inert particles dispersed within the matrix;
wherein the composite has a wax penetration point measurement from about 60 mm to about 250 mm at 25 degrees Celsius under ASTM Test Method D217; and
wherein the device is adapted to be rubbed upon the surface to coat the surface (with the coating);
an applicator pad; and
a rejuvenator fluid comprising a silicone and a wax.
19. A system for applying a protective coating to a surface, wherein the rejuvenator fluid further comprises an emulsifier.
20. A system according to claim 19, wherein the emulsifier component in the rejuvenator fluid comprises an acetic acid salt of the n-alkyl amines.

21. A system according to claim 18, 19, or 20, wherein the composite contains less than about 1 percent by weight of volatile organic compounds.
22. A system according to claim 18, 19, or 20, wherein the weight of the inert particles is between about 40 percent and about 80 percent of the total weight of the composite material.
23. A system according to claim 18, 19, or 20, wherein the silicone (fluid) is selected from the group consisting of polydimethylsiloxane fluid, dimethyl siloxane polymer fluid, alkylmethyl polysiloxane fluid, dimethylsiloxane fluid, and amine functional silicone fluid.
24. A system according to claim 18, 19, or 20, wherein the composite is water-resistant.
25. A system according to claim 18, 19, or 20, wherein the composite has formed a layer of silicone fluid on its surface.
26. A system according to claim 18, 19, or 20, wherein the composite has formed a layer of silicone fluid on its surface and wherein the coating of silicone fluid, which forms the exterior surface of the composite, has a multiplicity of the inert particles distributed in the coating of silicone fluid.
27. A system according to claim 18, 19, or 20, wherein the composite maintains its flexibility upon exposure to the atmosphere.
28. A system according to claim 18, 19, or 20, wherein the composite maintains its lubricant content upon exposure to the atmosphere.
29. A system according to claim 18, 19, or 20, wherein the composite conforms to the shape of a surface upon which the device is rubbed.
30. A system according to claim 18, 19, or 20, wherein the inert particles are selected to minimize scratching of the surface upon which the device is rubbed.

31. A system according to claim 18, 19, or 20, wherein the device deposits a durable, water-resistant coating upon the surface on which it is rubbed.
32. A system according to claim 18, 19, or 20, wherein emulsifiers constitute less than about 10 percent by weight of the composite.
33. A method for applying a protective coating to a surface, comprising:
rubbing the surface with the device claimed in claim 1.
34. A method for applying a protective coating to a surface, comprising:
using the system claimed in claim 17.
35. A device according to claim 1, wherein the matrix comprises polybutene, polyterpene, and polyethylene.
36. A device for application of a mold-release coating to a mold, comprising:
a composite, comprising:
a matrix comprising at least one polymer resin selected from the group
consisting of hydrocarbon, polybutene, silicone, and polyethylene;
at least one silicone fluid;
a surface coating comprising at least one material selected from the group
consisting of wax and silicone resin; and
a multiplicity of inert particles dispersed within the matrix;
wherein the composite has a wax penetration point measurement from about 60
mm to about 250 mm at 25 degrees Celsius under ASTM Test Method D217;
and
wherein the device is adapted so that the device, when rubbed upon a surface,
leaves a mold-release coating on the surface when rubbed thereon.
37. A device according to claim 1, wherein the inert particles have diameters of about 0.1 to about 3 microns or diameters greater than 50 microns, or both.

38. A device according to claim 1, wherein the composite is water-resistant.
39. A system according to claim 18, 19, or 20, wherein the inert particles have diameters of from 0.1 to 3 microns, or diameters greater than 50 microns, or both.
40. A method according to claim 34, wherein the composite contains less than 1 percent by weight of volatile organic compounds.
41. A device for applying a protective coating to a surface, comprising a portion of composite material consisting essentially of:
- about 32 parts by weight of polybutene;
 - about 3 parts by weight polyterpene;
 - about 3 parts by weight polyethylene plastic;
 - about 4 total parts by weight of plastic or silicone resin or both;
 - about 100 total parts by weight of inert particles.
42. A device according to claim 41, wherein the inert particles consist essentially of a part silica sand and 99 parts aluminum silicate.